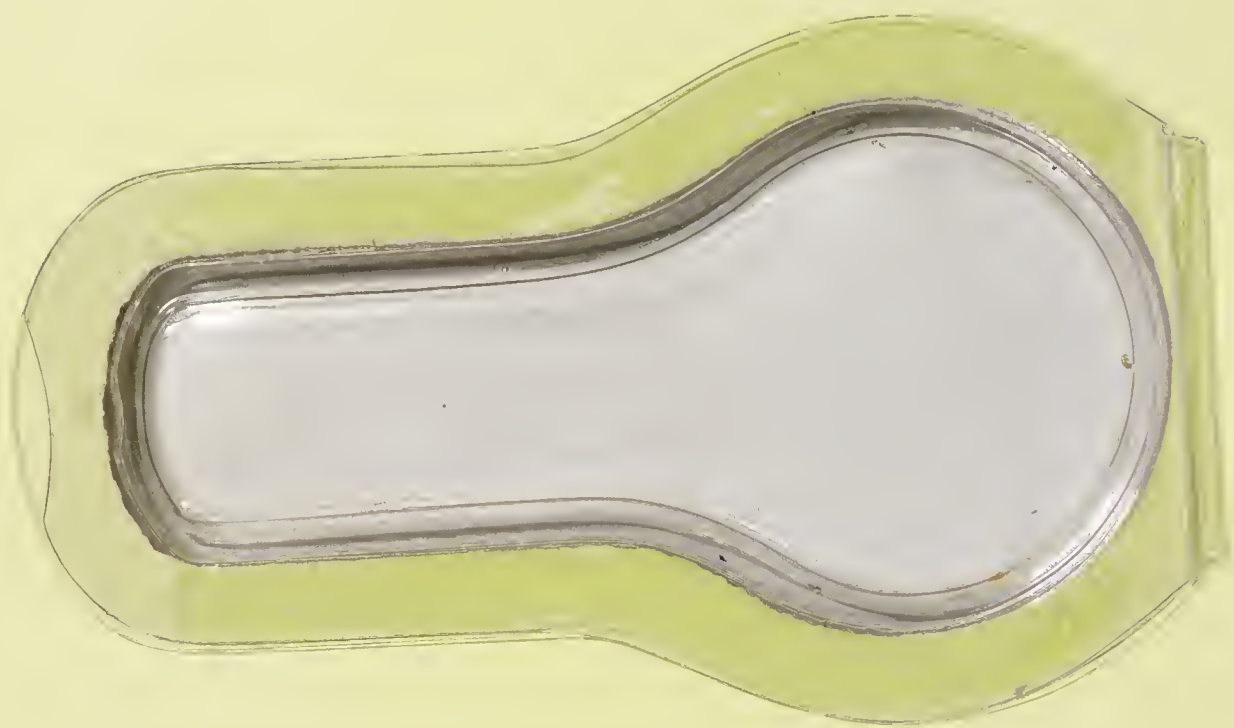




GRASSLANDS

NATURE SEARCH

A hands-on guide for nature sleuths





A Joshua Morris Book
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GRASSLANDS



NATURE SEARCH

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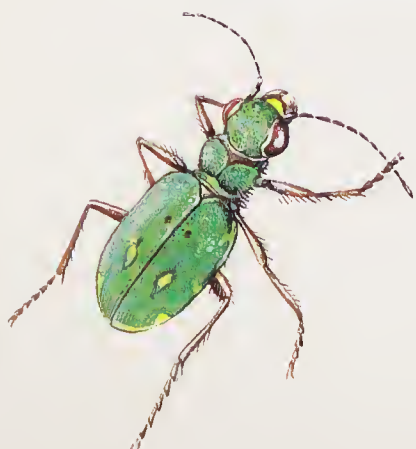
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CONTENTS


How It Works	7
Herds and Hunters	8
Spot the Difference	10
Sea of Grass	12
In the Mountains	14
Down in the Meadow	16
High and Dry	18
Animals of the Outback	20
Puzzle Answers	22
Glossary	26



HOW IT WORKS



GRASSLANDS

Grasslands contain a surprising variety of animals and plants. Here you can explore this world of burrowing rodents, massive herds, and ferocious hunters. Some creatures are hidden or camouflaged — use your magnifying glass to see what you can find. Look for this magnifying glass symbol . It indicates which creatures you should look for.

There are other challenges to test your powers of observation. For instance, somewhere you'll find an ovenbird in a nice warm spot!

There are answer pages at the back of the book as well as a glossary, where you can find out about the creatures that appear on every page.



HERDS AND HUNTERS

The sun blazes down on the savanna of East Africa. The grassy plain, dotted with trees, bushes, and termite mounds, stretches away on all sides. Vast herds of grazing animals wander across the savanna in their constant search for fresh grass and water. Zebras eat the long grass, while behind them come wildebeests and gazelles, who prefer the shorter, sweeter grass. Giraffes and elephants graze on leaves and twigs.

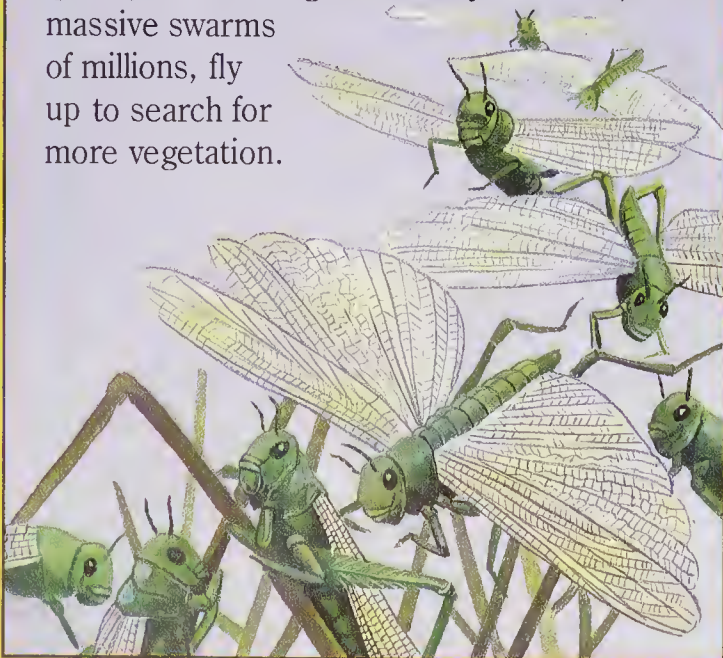
But the tall grass of the savanna is also home to hunters that prey on the herds. Few animals, including the quick gazelle, are a match for the cheetah. The fastest land animal, the cheetah can reach speeds of up to 60 miles an hour.

Lions lurk in the grass, but they usually wait for the cool of the evening before going out to hunt. Hyenas, too, attack the herds, and vultures soar above, waiting for the leftovers.



TOO MANY LOCUSTS

Locusts usually live quiet lives. But after heavy rains, the grass grows more lush, increasing the food supply and, in turn, increasing the locust population. The locusts quickly eat all the grass nearby and then, in massive swarms of millions, fly up to search for more vegetation.



CAN YOU FIND THEM?

Large animals, as well as tiny ones, can hide among the bushes and tall grasses of the savanna. Their colors provide perfect camouflage. Can you use your magnifying glass to spot these six creatures?

Soldier termites have strong jaws and legs. They defend their colony from insect enemies, especially ants.

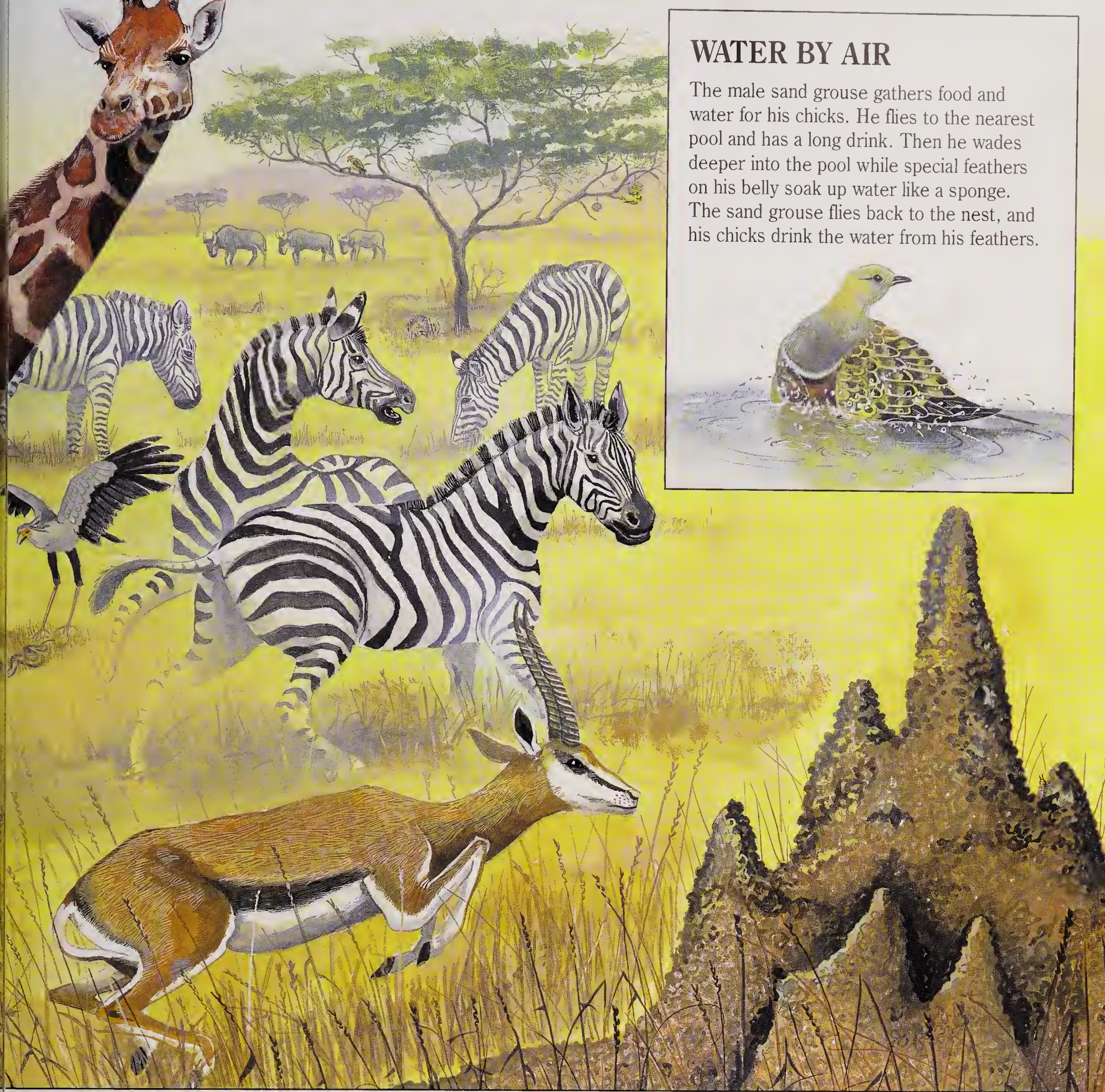


Lions live in groups called prides. Each pride is controlled by the adult females and has its own distinct territory.



WATER BY AIR

The male sand grouse gathers food and water for his chicks. He flies to the nearest pool and has a long drink. Then he wades deeper into the pool while special feathers on his belly soak up water like a sponge. The sand grouse flies back to the nest, and his chicks drink the water from his feathers.



The topi is an antelope. Other topis and their babies live in separate nursery herds.



Fischer's lovebirds are called lovebirds because of the gentle way that mating pairs groom each other with their beaks.

The dung beetle rolls a ball of dung that it buries with its eggs. When the young hatch, they feed on the dung.



The sparrow weaver builds its nest by weaving together strands of dry grass.

SPOT THE DIFFERENCE

The pampas of Argentina cover an area that is much bigger than the state of Texas. Flat and unvarying, they stretch from the deserts of the north to the forests of the south. The cold, dry wind called the pampero blows from the south, dehydrating the ground. There is so little rainfall that only a few small trees can live here.

The pampas may seem bare and empty, but many different animals make their homes here. There are several large grass-eating mammals, including the pampas deer and the guanaco, a woolly relative of the camel. One of the biggest grass eaters of all is not a mammal but a bird. This bird, the greater rhea, grows up to 5 feet tall. It can run faster than a horse.



But the one thing that this enormous bird can't do is fly!

The busiest place in the pampas is on the ground, among the grass stems. Several kinds of rodents live here in underground burrows. Small caviés forage along trails in the grass, looking for juicy new shoots. Viscachas dig networks of tunnels, throwing up mounds of

earth outside. These rodents use their burrows as hiding places from the predators of the pampas, which include the maned wolf, the gray fox, and the caracara hawk.

See if you can find six caviés hidden in the picture on the right. There are also ten differences between the picture on the right and the one on the left. Can you spot them?



SEA OF GRASS

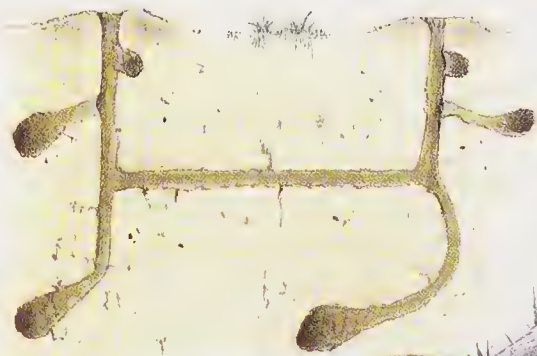
The North American prairie looks like a sea. When the wind blows across it, the tall grasses move like great waves. In some places the grass is as tall as a man. Under the ground, in the rich, black soil, live burrowing animals such as mice, prairie dogs, and even owls. Prairie chickens and meadowlarks build their nests among the grass stems. Jackrabbits chew on the fresh shoots.

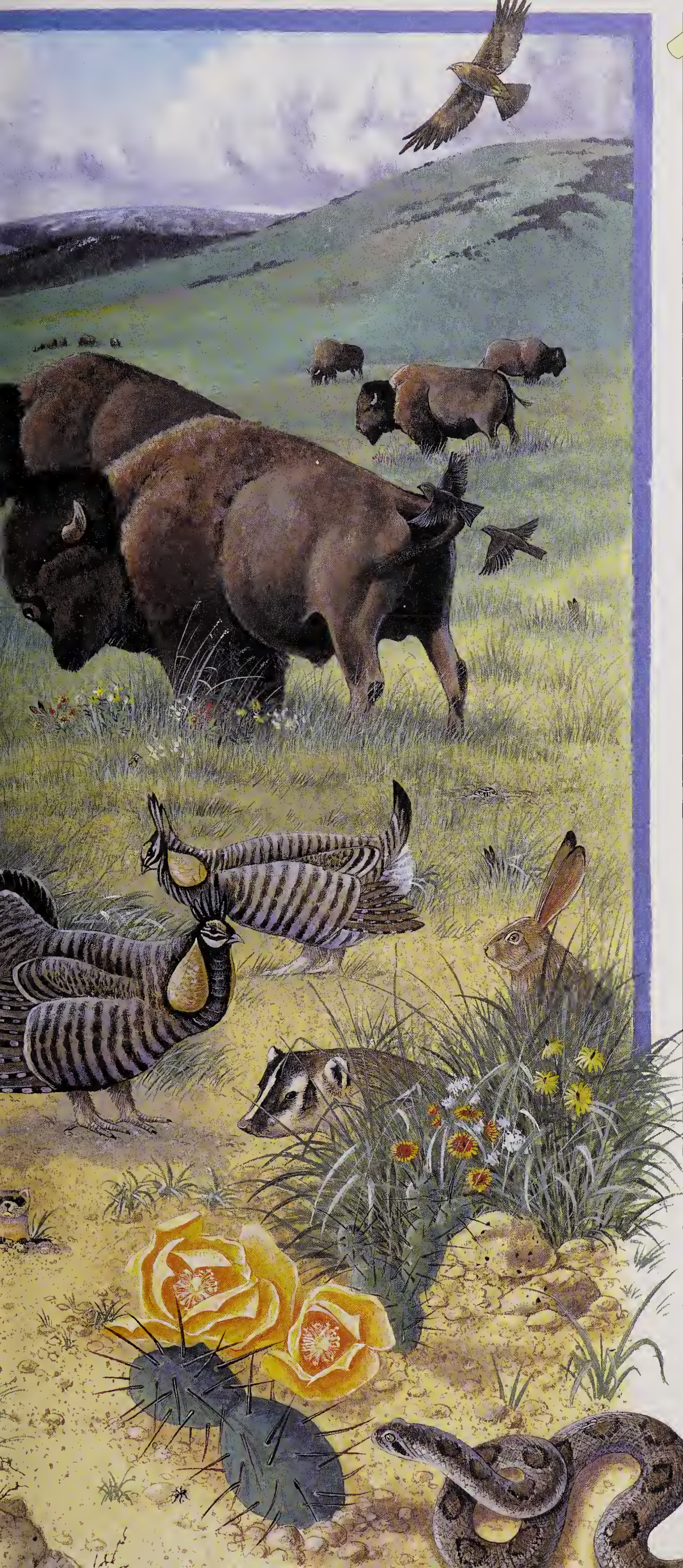
These small animals are hunted by many predators. Rattlesnakes strike at them with their venomous fangs, and badgers dig into their burrows. Hawks and eagles seize prey in their strong talons. Bobcats and coyotes hunt for many of the small prairie animals and birds. Even bigger mammals, such as the fast-running pronghorns, are in danger from wolves. Only the massive bison, which wanders across the prairie searching for fresh grass to eat, is safe from attack.

Six jackrabbits are hiding in the tall grass. Can you find them?

PRAIRIE DOG TOWNS

Prairie dogs live together in large “towns.” Each town covers a big area and may contain as many as 500 animals. The prairie dogs create hundreds of burrows, throwing up mounds of earth as they dig. They clear away all the tall plants to give a good view. Some prairie dogs sit on the mounds. They are the “sentries,” who warn the others as soon as they see danger.



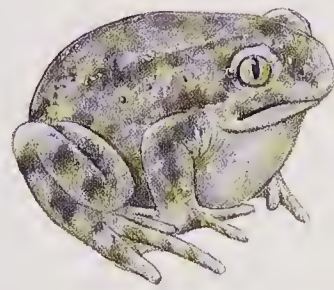


CAN YOU FIND THEM?

The tall grasses of the prairie hide many animals, big and small. Using the magnifying glass, see if you can find the following creatures.



The deer mouse comes out of its burrow at night to feed on seeds and nuts.



The spadefoot toad has a sharp "spade" on each of its hind legs.



The American badger catches and eats small mammals, insects, and even rattlesnakes.



Harvester ants collect seeds and store them in their nests in special chambers.



The burrowing owl often makes its nest in abandoned prairie dog burrows.



The western meadowlark has white feathers on each side of its tail. They flash when the bird is flying.

IN THE MOUNTAINS

High in the Rocky Mountains lie alpine meadows. Because of the bitter winters, only a few animals live here year-round. They are mostly small animals, such as pikas, marmots, and weasels. Bigger mammals, such as the nimble bighorn sheep and Rocky Mountain goats, move to lower altitudes for the winter.

When summer arrives, even though the sunshine is bright, it is still cold at this height. Much of the snow has melted and drained into pools and rushing streams. The larger animals come up to graze on the rich grasses. Many birds arrive, too, to feed and breed. The water pipit nests in the shelter of rocks and grass clumps. Rosy finches and swallows make their homes in crevices in the cliffs.

The cougar hunts for mule deer. The grizzly bear also hunts deer, but it lives mainly on berries, roots, and sometimes fish. The wolverine catches small mammals and picks on the remains left by other predators.

The Rocky Mountain kid in the center of this scene must find his way back to his mother. Trace the shortest route over the rocks.

FIND THE FEATHERS

Each of these feathers has been dropped by one of the birds in the picture. Can you find the feathers?

Ptarmigan's belly feather

Cliff swallow's flight feather

Rosy finch's breast feather

Golden eagle's flight feather





HAY HARVESTERS

The small, furry pika stores food for winter eating. In the late summer it cuts down green leaves and grass stems with its teeth. Then it picks them up in its mouth and piles them under overhanging rocks. Here the grass and leaves slowly dry into hay. Some hay piles are very big and weigh as much as 13 pounds. The pika defends the territory near its hay pile.

DOWN IN THE MEADOW

In early summer a European meadow is full of color. Yellow buttercups and red poppies grow alongside white daisies and blue cornflowers. Bright butterflies, such as the large blue and the silver-washed fritillary, flit among the plants while bees collect nectar and pollen.

On the ground, the meadow is like a tiny jungle. The tangle of stems, leaves, and matted roots makes an ideal home for hundreds of insects. Crickets and grasshoppers chew on young, juicy grasses. Ladybugs and green tiger beetles hunt for other insects.

Larger animals also live here. Rabbits come out of their burrows at the beginning and end of the day to feed on the grasses and wild herbs growing in the meadow. Hedgehogs snuffle about for earthworms, beetles, and caterpillars. Partridges and skylarks lay their eggs in the grass, and harvest mice build nests among grass stalks. But the grass can't hide these creatures from the keen eyes of the kestrel as it hovers high above.

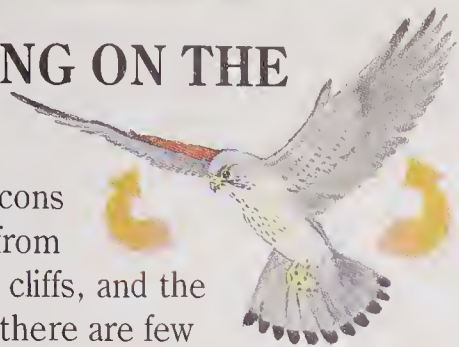
FED BY THE ANTS

Large blue butterflies cannot live without two other animals: the red ant and the rabbit. When the large blues are caterpillars, they produce a syrupy liquid. The ants carry the caterpillars off to their nests and feed on this liquid while the caterpillars eat the ant larvae. The rabbits help by nibbling the grass down, letting the sun's warmth get to the ants' nest.



HOVERING ON THE WIND

Hawks and falcons look for prey from treetops, high cliffs, and the sky. Because there are few trees in a meadow, the kestrel “perches” in midair. It faces and leans into the wind, beating its wings and fanning its tail so that it remains in one place. The kestrel is also known as the windhover.



CAN YOU FIND THEM?

Tall meadow grasses are a good hiding place. The animals' colors match the plants, making them hard to spot. Can you find them with your magnifying glass?

When faced with danger, the red-legged partridge does not fly away — it runs!



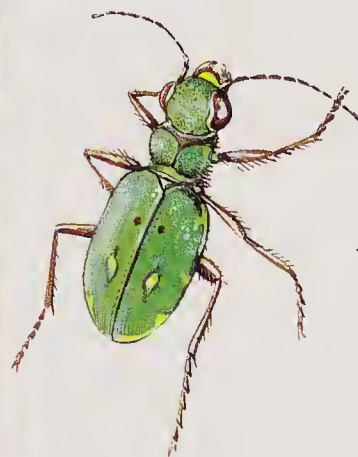
The meadow brown butterfly has a slow, floppy flight. Unlike many other species, it flies on cloudy days.



The two-spot ladybug protects plants. It eats large numbers of aphids, which suck the sap of plants.



The green tiger beetle, a fierce hunter and a fast runner, catches other insects for food.



The honeybee collects pollen from flowers and puts it into baskets, or sacs, on its hind legs.



Harvestmen have weak eyes. They use feelers on their mouths and legs for smelling, touching, and finding their way.



HIGH AND DRY

The wind howls across the high steppes of Asia. In the summer the wind is hot and dry. It scorches the short grass and whips the soil into dust. High above, wispy clouds streak the blue sky. But the summer is short. When winter arrives on the steppes, the winds will become blizzards and the ground will be thick with snow.

The animals that live here make the most of the warm months to feed and breed. Many of them are small rodents, such as the hamster, the marmot, the steppe vole, and the jerboa. They live in the shelter of the grass, searching for seeds, roots, and stems. Larger animals, such as the saiga antelope and the wild horse, graze in wandering herds.

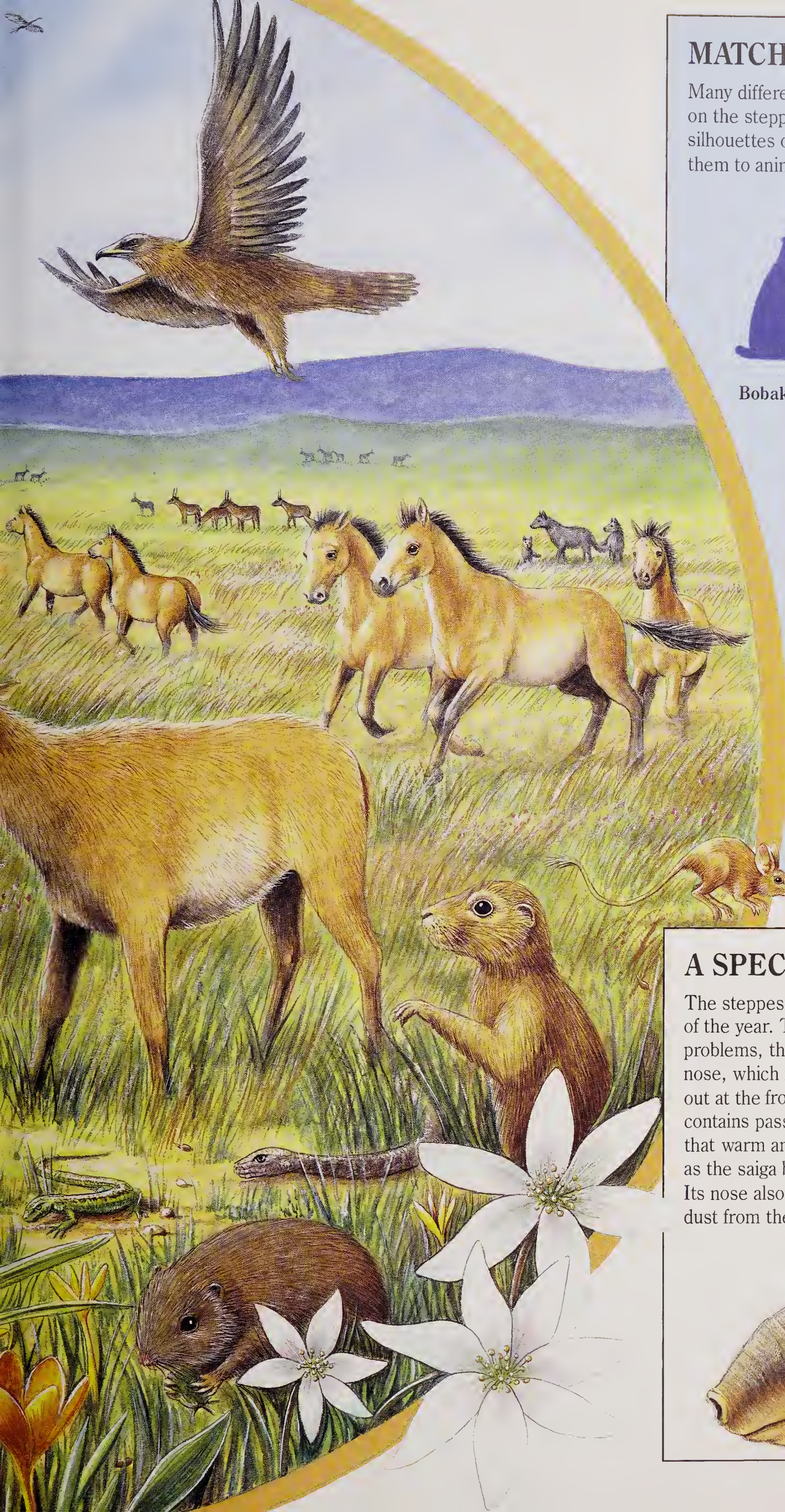
Few birds live on the steppes all year round. Demoiselle cranes and great bustards come to breed in the summer and fly south for the winter. The steppe eagle and the sociable plover also make their nests here.

The hamster has dropped ten seeds. Can you find them?

BUSTARD DISPLAY

Great bustards are normally brown in color. But when the male is courting a female, he turns himself white! He blows up his throat like a balloon and raises his tail, spreading it flat over his back. He stretches and twists his wings. All these movements display the bustard's white feathers. He may stay like this for several minutes.





MATCH THE SHAPES

Many different kinds of small mammals live on the steppe grasslands. Here are the silhouettes of five of them. Can you match them to animals in the picture?



Bobak marmot



Steppe vole



Jerboa



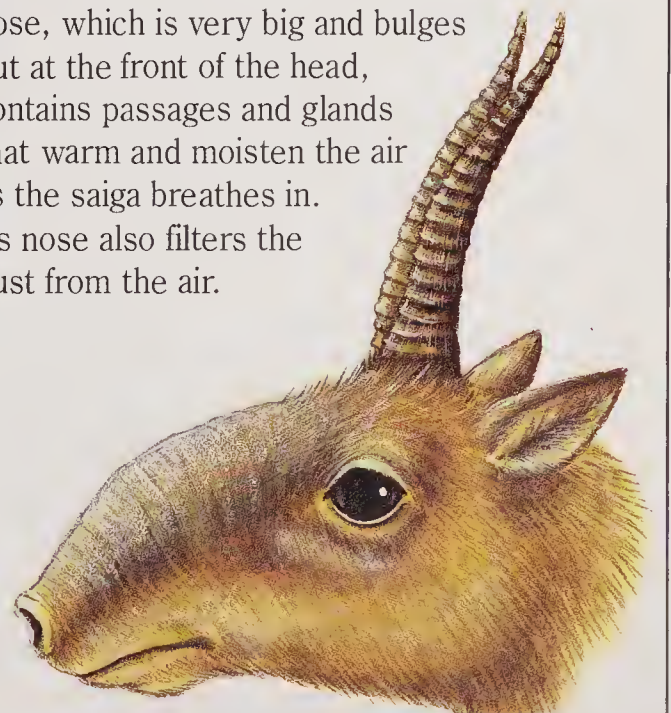
Hamster



Souslik

A SPECIAL NOSE

The steppes are cold, dry, and dusty most of the year. The saiga can cope with these problems, thanks to its special nose. The nose, which is very big and bulges out at the front of the head, contains passages and glands that warm and moisten the air as the saiga breathes in. Its nose also filters the dust from the air.



ANIMALS OF THE OUTBACK

The sun beats down fiercely on the Australian outback. But when late afternoon arrives, the plain, dotted with grass and flowers, finally cools down. Animals that have kept out of the heat during the day become active. Gray kangaroos that have been sheltering under gum trees hop out to graze. The tawny frogmouth that has been sitting still for the day flies off to hunt for insects. The echidna, or spiny anteater, emerges from a hole in the soil and begins its search for termites.

Other animals head for shelter as the outback cools down. Reptiles, such as the bearded dragon and the shingleback lizard, rely on the sun to heat their blood and make them active. They hide among the rocks and sand hills before they grow cold and slow. Noisy flocks of bright-colored budgerigars and galahs stop to drink at a water hole before roosting for the night.

CAN YOU FIND THEM?

Although the landscape is open, many animals are well camouflaged and can hide easily. Using your magnifying glass, see if you can spot these creatures.

The mulga snake grows to more than 6 feet in length. As it grows older, its neck becomes thicker.

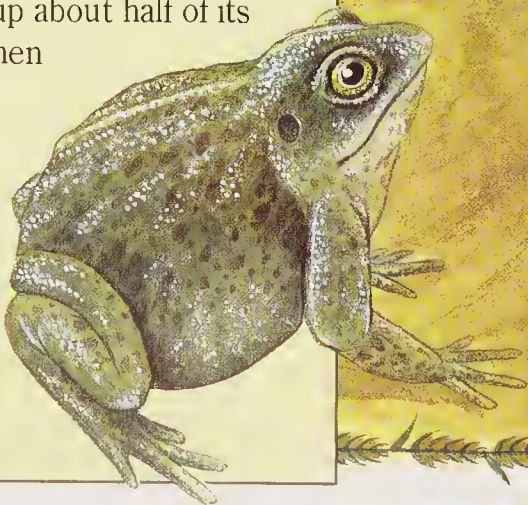


The rat kangaroo is the smallest member of the kangaroo family. It is only about 12 inches long.



WAITING FOR RAIN

The water-holding frog has a remarkable way of surviving the dry season. As the rains end, it stores water in glands under its skin. The water makes up about half of its body weight. The frog then buries itself deep in the ground. It covers itself with a second layer of skin to stop the water from being lost. It can live like this for months, or even years, until the rains come again.

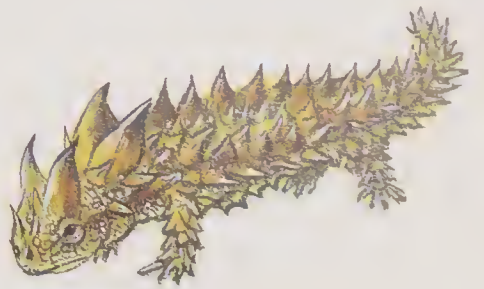


The echidna digs for termites and ants with its feet and picks them up with its long, sticky tongue.



The shingleback lizard opens its mouth wide and shows its bright blue tongue to scare away enemies.

The kookaburra gets its name from the sound of its long call. It is also known as the laughing jackass.



The thorny devil is protected from its enemies by very sharp spikes along its back.



BABY IN A POUCH

Kangaroos are marsupial mammals. The babies are very small and undeveloped when they are born. The baby kangaroo, called a joey, crawls across its mother's fur until it reaches her pouch. There it finds a nipple and begins to suck her milk. The joey may stay attached to the nipple for as long as two months. After about six months, the joey is strong enough to leave the pouch and begin hopping. But it still returns to the pouch for milk and safety for another six months.



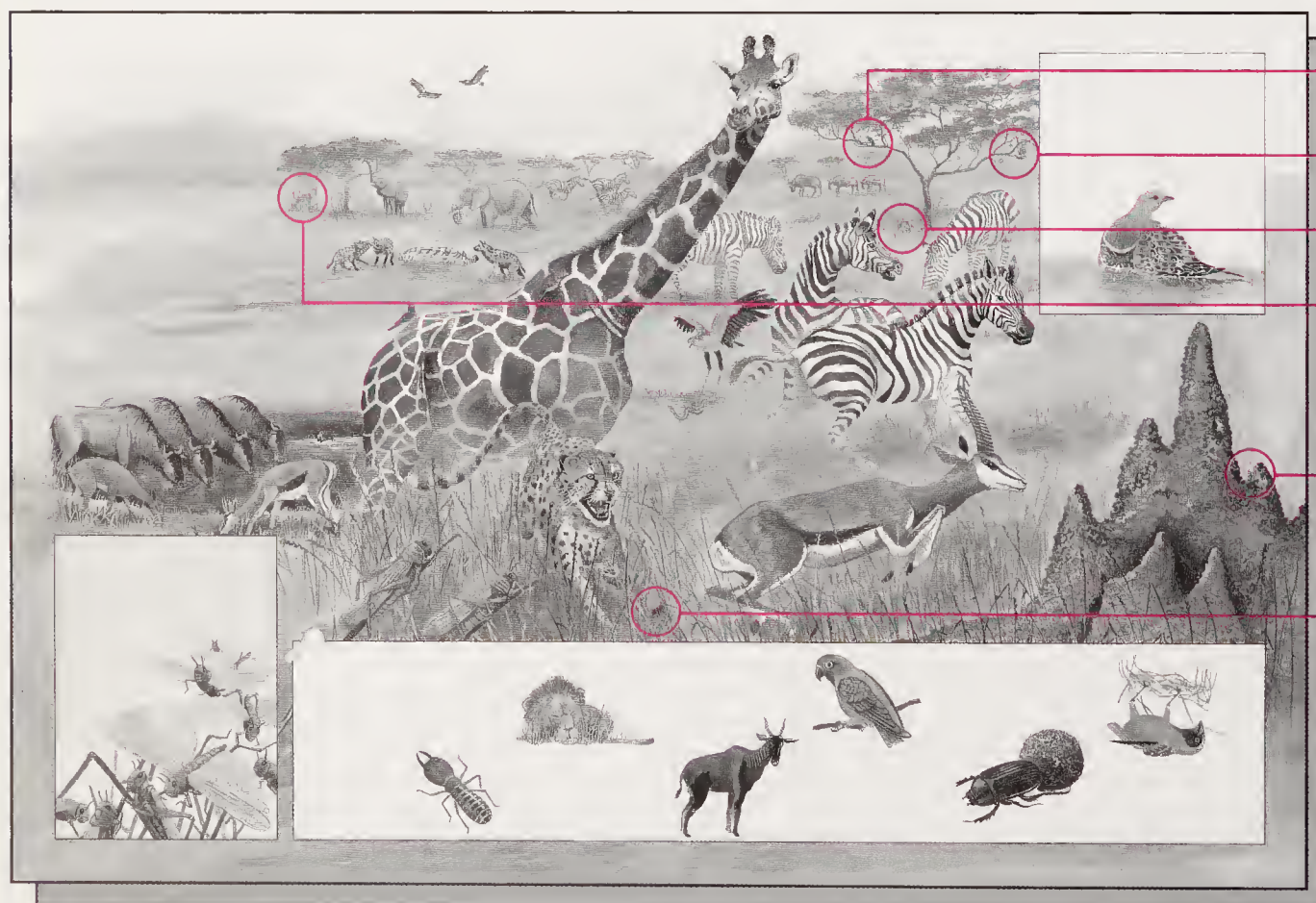
PUZZLE ANSWERS

The grasslands of the world cover huge areas, from tropical Africa to the Arctic Circle. About half of Africa — and much of Asia — is grassland. Grass is different from most other plants. It grows from the base of the plant, not the tip. So even if the tip is eaten, the grass continues to grow. Because of this, grasslands give a steady supply of food to many grazing animals, both big and small, as well as to the predators that prey on them.

Today, many grassland areas are in danger. Some are being plowed up and sown with grain crops such as corn and wheat. Other places are being fenced off as pasture for large herds of cattle. Often the herds contain too many animals and the grass is destroyed. The soil then becomes bare and can be easily washed away by rain or blown away by wind.

Did you find all the hidden animals with your magnifying glass? In the following pictures, the position of each hidden animal is indicated by a circle. Answers to the questions are given as well.

HERDS AND HUNTERS



Fischer's lovebird

Sparrow weaver

Lion

Topi

Soldier termite

Dung beetle

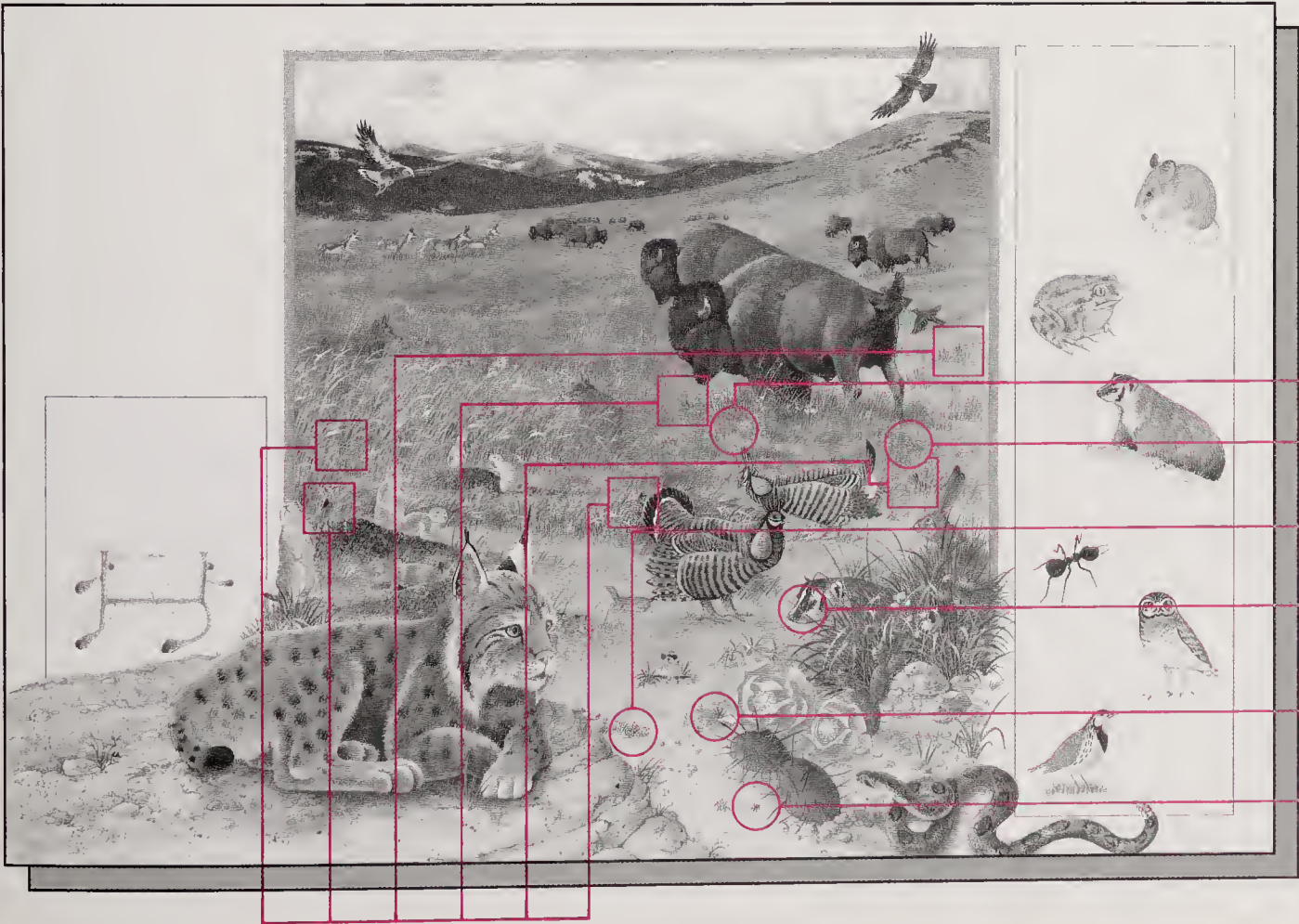
SPOT THE DIFFERENCE



Cavies

The differences are shown by: ☐

SEA OF GRASS



Jackrabbits

- Western meadowlark
- Burrowing owl
- Spadefoot toad
- American badger
- White-footed mouse
- Harvester ant

IN THE MOUNTAINS



- Golden eagle's feather
- Ptarmigan's feather
- Rosy finch's feather
- Cliff swallow's feather

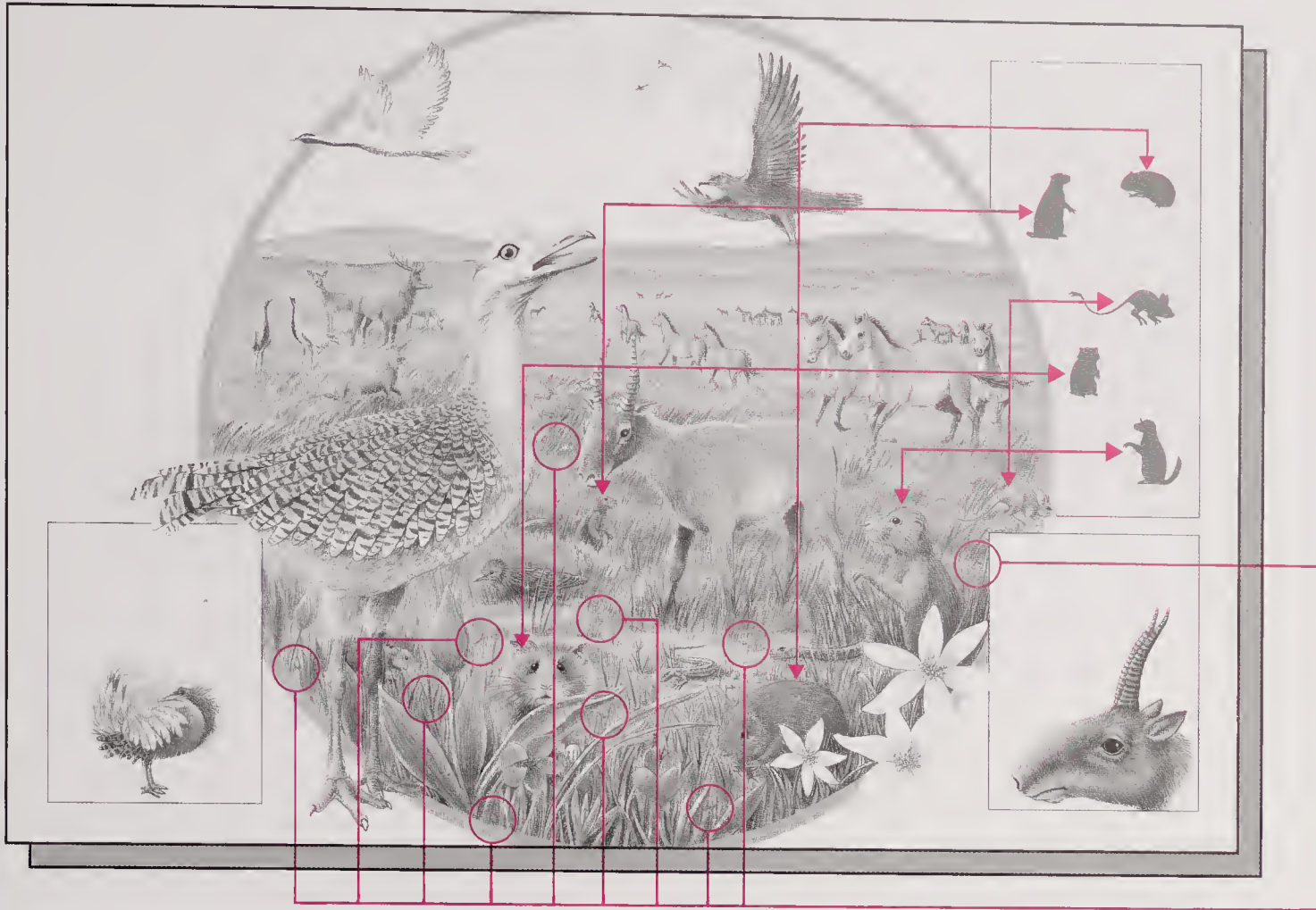
This is the route the Rocky Mountain kid should take:

DOWN IN THE MEADOW



- Meadow brown butterfly
- Honeybee
- Red-legged partridge
- Two-spot ladybird
- Green tiger beetle
- Harvestman

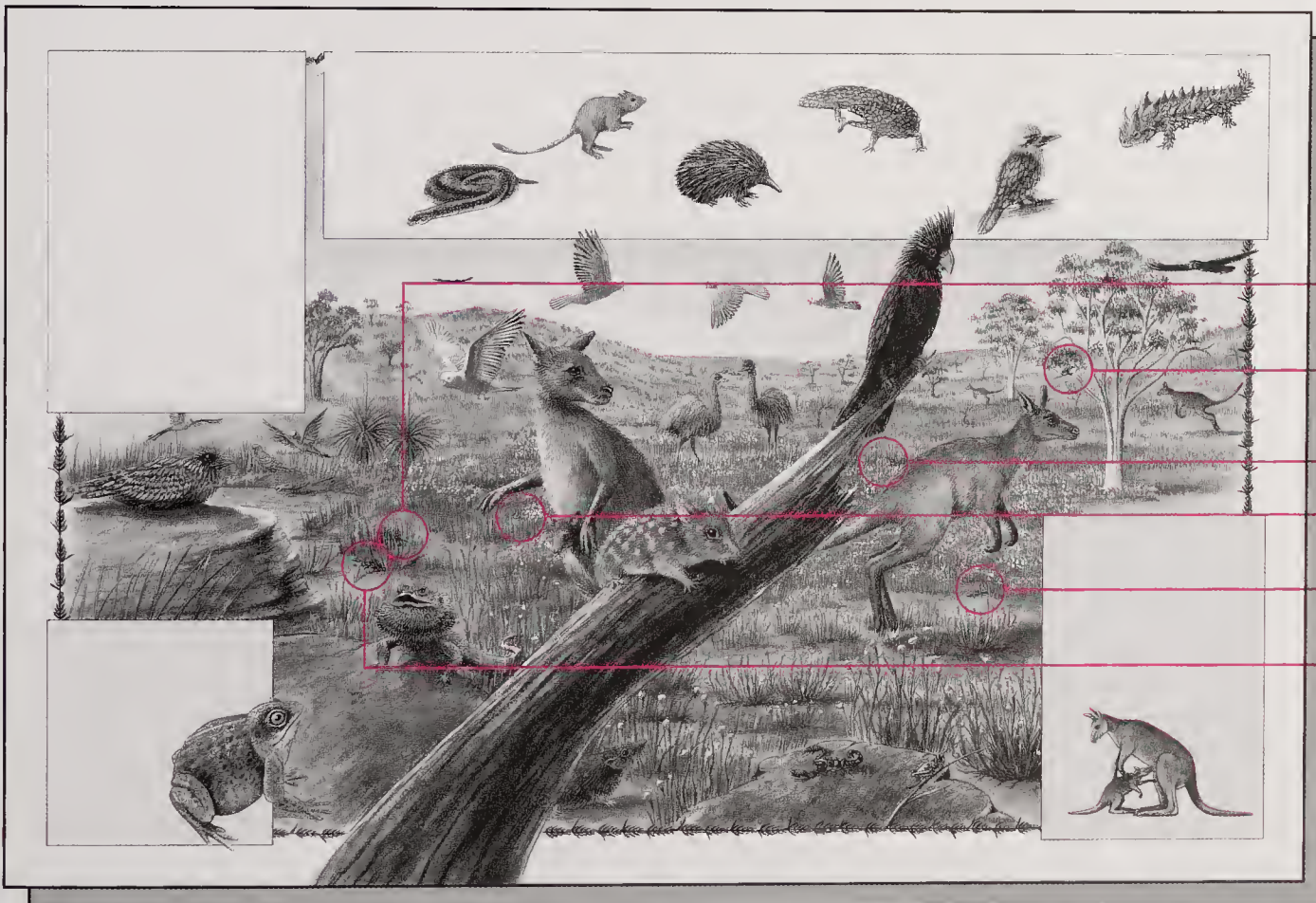
HIGH AND DRY



Seeds

Animals and their silhouettes are shown by:

ANIMALS OF THE OUTBACK



Echidna

Kookaburra

Rat kangaroo

Thorny devil

Mulga snake

Shingleback lizard

GLOSSARY

HERDS AND HUNTERS

pages 8-9



Cheetah

The cheetah is a skillful hunter, but it may sometimes be chased from its kill by hungry vultures.



Dung beetle

The dung beetle uses its head and antennae to collect animal droppings and roll them up into a ball.



Elephant

Elephants live together in herds. Each herd is usually led by an old female elephant.



Fischer's lovebird

The female lovebird carries grass and straw for her nest under the feathers at the base of her tail.



Giraffe

The giraffe is the tallest animal in the world, growing as tall as 18 feet.



Impala

The impala is an antelope that can leap 30 feet and run at a speed of up to 50 miles per hour. It eats grass, fruit, and leaves.



Lappet-faced vulture

This vulture has such keen eyesight that it can spot its prey almost a mile away.



Lion

Lions sleep at least twenty hours a day. They hunt at night or early in the morning.



Locust

The locust is a grasshopper. It has long hind legs for jumping and four wings that fold over its back.



Puff adder

The puff adder is a poisonous snake that hisses and puffs itself up when frightened.



Red-billed oxpecker

The red-billed oxpecker perches on large mammals such as antelopes and giraffes and picks insects from their skins. It even clings to the ears of the animals!



Sand grouse

The sand grouse makes its nest by scraping a hollow in the ground, where it lays two or three eggs.



Secretary bird

The secretary bird is usually seen walking through the grassland looking for insects and snakes. It pounces on them with its strong feet.



Soldier termite

Most termites are workers. Soldier termites defend the nest against intruders and repair the mound if it is damaged.



Sparrow weaver

These birds live in large groups. They feed on seeds and insects.



Spotted hyena

Hyenas are doglike animals with strong jaws and teeth. Spotted hyenas hunt in packs.



Thomson's gazelle

The male gazelles fight by locking their horns together and then pushing and twisting against each other.



Topi

The topi grazes in herds on open grasslands. Males defend their territories against other males in order to attract females.



Wildebeest

The wildebeest is a large antelope that feeds on short grass. Large numbers migrate very long distances in search of fresh grazing areas.



Zebra

The zebra is a member of the horse family. When it is alarmed, the zebra gives a loud yelp to warn the rest of the herd.

SPOT THE DIFFERENCE

pages 10-11



Argentine gray fox

The Argentine gray fox hunts the pampas for small prey such as rodents, birds, and snakes.



Black vulture

The black vulture is a large bird of prey. It feeds mostly on dead animals that it spots from the air with its keen eyesight.



Burrowing owl

The burrowing owl bobs up and down as it stands guard at the entrance to its hole. This may help to frighten away enemies.



Cavy

Cavies are closely related to the domestic guinea pig. They spend the day in their burrows and come out to feed at night.



Crested caracara

The crested caracara is a large hawk. It has long legs and can run fast to catch prey on the ground.



Crested seriema

The crested seriema is a bird that lives mostly on the ground. Although it has wings, it prefers to run from danger.



Giant anteater

The giant anteater catches ants and termites by flicking out its sticky tongue. It can do this 160 times a minute.



Greater rhea

The rhea is a large flightless bird. The male builds the nest and sits on the eggs.



Guanaco

The guanaco is about 3 feet tall at the shoulder. It has a coat of soft, woolly hair.



Least seedsnipe

The least seedsnipe is a short-legged bird that nests on the ground. It feeds on seeds and fresh leaves.



Maned wolf

The maned wolf uses its long, stiltlike legs to see above the grass. It feeds on small animals, insects, and fruit.



Mara

The mara is a kind of cavy. It has long legs and escapes from its enemies by running or leaping.



Pampas cat

The pampas cat has tufted ears. It hunts at night for rodents, birds, and lizards.

**Pampas deer**

The male pampas deer has glands on its rear hooves that give out a scent that can be smelled by the females more than 1 mile away.

**Plains viscacha**

Plains viscachas come out in the evening to feed on the grass near their burrows. They quickly dive back underground at the first sign of danger.

**Rufous ovenbird**

The rufous ovenbird builds its nest of mud. The nest has an inner chamber where the eggs are safe from predators.

**Tuco-tuco**

The tuco-tuco is related to the cavy. The tuco-tuco's name comes from its shrill cry of warning.

SEA OF GRASS

pages 12–13

**American badger**

The American badger can dig very fast with its strong claws, either to catch prey or to escape from an enemy.

**Bison**

Bison live in herds, and each male in the herd has a certain rank. The calves are cared for by their mothers until they are about 3 years old.

**Black-footed ferret**

This rare ferret preys on prairie dogs for its food. It also lives in old prairie dog burrows.

**Bobcat**

The bobcat has very good hearing and eyesight. It hunts at night for birds and small mammals.

**Burrowing owl**

The burrowing owl spends most of its time sitting at the entrance to its hole. When disturbed, it bobs up and down on its long legs.

**Cowbird**

The female cowbird lays her eggs in the nests of other birds. The young cowbirds are then looked after by "foster parents."

**Coyote**

The coyote is a wild dog. It eats all kinds of food, from juniper berries and insects to rabbits and, occasionally, antelope.

**Deer mouse**

The deer mouse has a short tail and neck and small ears; its strong claws help it dig in the soil.

**Ferruginous hawk**

The ferruginous hawk often makes its nest on the ground. Its main prey are prairie dogs and ground squirrels. *Ferruginous* means rust-colored.

**Golden eagle**

The golden eagle is so strong that it can carry off animals that weigh as much as it does.

**Greater prairie chicken**

The male prairie chicken leaps, dances, and makes a booming noise in his throat to attract a mate.

**Harvester ant**

These ants chew seeds into a pulp called ant bread. They squeeze the bread and drink its liquid.

**Jackrabbit**

The jackrabbit is not a cottontail rabbit, but a hare. It feeds on thick, juicy leaves and stems.

**Prairie dog**

Prairie dogs sleep through the winter. They block up their burrow entrances from the inside with earth and stones to keep out predators.

**Pronghorn**

The pronghorn is a large hoofed mammal that can run more than 6 miles in 10 minutes. Both the male and female have black horns.

**Rattlesnake**

The rattlesnake can fold its fangs back in its mouth. When it strikes, the fangs are projected forward.

**Spadefoot toad**

The spadefoot toad must keep its skin moist, so it spends all day in its hole and comes out to feed at night.

**Weasel**

The weasel is so thin that it can chase mice and prairie dogs down into their burrows.

**Western meadowlark**

The western meadowlark nests on the ground. It covers the nest with a grass roof to hide the eggs.

IN THE MOUNTAINS

pages 14–15

**Alpine marmot**

The alpine marmot sleeps through most of the winter. It wakes every two or three weeks to feed and urinate.

**Bighorn sheep**

Bighorn sheep bound nimbly about the rocky slopes. They migrate long distances between winter and summer pastures.

**Cliff swallow**

Cliff swallows fly thousands of miles every year between their summer and winter homes.

**Cougar**

The cougar usually lives alone. It marks its territory by scraping together piles of soil or leaves.

**Golden eagle**

The golden eagle soars high over the mountains with wings outstretched, searching for rabbits and small rodents.

**Grizzly bear**

The grizzly bear gets its name from the white hairs that grow in its brown coat, making it look gray, or grizzled.

**Lynx**

The lynx has wide paws that help it run fast over the snow in winter.

**Mule deer**

When young mule deer, or fawns, are born, they have no scent. This makes it hard for predators to find them.

**North American dipper**

The dipper searches along the edges of streams and under the water for insect larvae and small fish.

**Pika**

The pika has two kinds of high-pitched calls. A short call warns of danger, while males give long calls during the breeding season.

**Ptarmigan**

The ptarmigan has brown body feathers in summer, but in winter they turn white, matching the tail and wings.

**Rocky Mountain goat**

This goat is an excellent rock climber. Fights between males are rare, but their sharp horns can cause painful injuries.

**Rosy finch**

The rosy finch is a small alpine bird that lives mainly on seeds. However, it feeds insects to its young.

**Short-tailed weasel**

The short-tailed weasel is brown in summer but white in winter, except for the permanent black tip on its tail.

**Turkey vulture**

The turkey vulture glides, tilting from side to side, in search of dead animals, or carrion, to feed on.

**Water pipit**

The water pipit is a small bird that searches for insects along the edges of the snowbanks.

**Wolverine**

The wolverine digs a den in a deep snowdrift to shelter its young until the early summer.

**Meadow grasshopper**

The meadow grasshopper lays its eggs in soft soil and protects them with a frothy covering.

**Rabbit**

Rabbits thump the ground with their hind legs to warn other rabbits that danger is near.

**Red ant**

Red ants collect food, including seeds, dead insects, and the juice from ripe fruit, and carry it back to their nest.

**Red-legged partridge**

The red-legged partridge makes a nest in a hollow lined with grass and then lays as many as 16 eggs in it.

**Silver-washed fritillary**

The silver-washed fritillary lays its eggs in trees that grow near violets, which the caterpillars will feed on.

**Skylark**

The male skylark sings his warbling song while fluttering high in the air.

**Two-spot ladybug**

The two-spot ladybug's bright red color warns birds that it tastes horrible.

DOWN IN THE MEADOW

pages 16–17

**Bumblebee**

Bumblebees live in colonies of up to 300 bees. They build their nest underground in an unused mouse or vole burrow.

**Earthworm**

An earthworm must stay damp and cool, so it only comes out of the ground at night.

**Emperor moth**

The male emperor moth flies by day, looking for females to mate with. He can detect a female more than a mile away.

**Field cricket**

The field cricket sits at the entrance to its burrow and "sings" by rubbing its front wings together.

**Green tiger beetle**

The larvae, or young, of the green tiger beetle hide in holes but leave their jaws sticking out, waiting to catch insects.

**Harvestman**

If a harvestman is caught by its leg, it can break off the leg and run away.

**Harvest mouse**

The harvest mouse is an agile climber. It can use its long tail to cling to the grass stems.

**Hedgehog**

When it is attacked, the hedgehog curls up so that its spines protect its soft underparts.

**Honeybee**

The honeybee uses its long tongue to suck nectar from flowers.

**Kestrel**

The kestrel makes its nest in holes in trees or cliffs, or sometimes in old crows' nests.

**Large blue butterfly**

Large blues lay eggs on the flowers of the thyme plant. When the caterpillars hatch from the eggs, they feed on the flowers.

**Meadow brown butterfly**

The meadow brown butterfly only lives for about 21 days after it has hatched from its pupa.

HIGH AND DRY

pages 18–19

**Bobak marmot**

Marmots warn each other of danger by giving a shrill cry that can be heard up to 1,500 feet away.

**Demoiselle crane**

The demoiselle crane may fly as high as 15,000 feet above sea level as it crosses mountain ranges on the way to its breeding grounds.

**Goitred gazelle**

Goitred gazelles live alone or in small groups during the summer. In autumn, they gather in large herds.

**Great bustard**

The great bustard is the heaviest flying bird in the world. It can weigh as much as 40 pounds.

**Hamster**

The hamster collects seeds, roots, and insects. It carries this food back to its burrow in pouches in its cheeks.

**Jerboa**

The jerboa hops on its long hind legs. When escaping from an enemy, it can leap 10 feet.

**Lark**

The lark scrapes out a shallow pit in the ground in which it builds its nest. The lark lays 4 to 6 eggs.

**Orsini's viper**

The Orsini's viper injects venom into its prey through its two long, hollow fangs.

**Polecat**

When threatened, the polecat can produce a foul-smelling fluid from glands near its tail.

**Red deer**

The male red deer grows a new set of antlers each year. It takes about 100 days for the antlers to develop fully.

**Saiga antelope**

The saiga uses its keen eyesight to spot predators, and its great speed and strength to escape from them.

**Sand lizard**

The sand lizard is cold-blooded. It is only active during the day, after its body has warmed up.

**Sociable plover**

Sociable plovers nest together in groups of 20 to 30 pairs. Their nest is made in a small hollow in the ground.

**Souslik**

The souslik is a ground squirrel. It comes out of its burrow by day to search for bulbs, seeds, and grass.

**Steppe eagle**

There are few trees on the steppes, so this eagle nests on the ground. It eats rodents such as hamsters, sousliks, lemmings, and marmots.

**Steppe vole**

The steppe vole digs long tunnels near the surface of the ground in its search for roots and bulbs to eat.

**Wild horse**

The wild horse, or Przewalski's horse, is the same size as a zebra, standing about 53 inches high at the shoulder.

**Wolf**

Wolves live and hunt together in packs of between 8 and 20 members. Each pack lives in its own territory.

ANIMALS OF THE OUTBACK

pages 20–21

**Bearded dragon**

The bearded dragon has a spiny pouch below its lower jaw. It puffs out the pouch to scare enemies.

**Budgerigar**

The budgerigar is a small parrot that travels in large flocks, feeding on wild grass and grain crop seeds.

**Echidna**

The female echidna lays eggs that hatch in 10 days. The babies then suck milk from their mother.

**Emu**

Emus are large birds that cannot fly, but they can run very fast on their long, powerful legs.

**Galah**

The galah is a parrot that makes its nest in holes in trees or cliffs.

**Gray kangaroo**

The gray kangaroo has no permanent home. It wanders across the outback in groups of up to 10 animals.

**Kookaburra**

The kookaburra is a bird that catches reptiles, small mammals, insects, and young birds to eat.

**Marsupial mouse**

The female marsupial mouse may have as many as 10 young. When outside the pouch, they cling to her sides and back.

**Mulga snake**

The mulga snake is found all over Australia except in the southeast and southwest corners.

**Native cat**

The native cat is not a cat at all, but a marsupial mammal that suckles its young in a pouch.

**Plague locust**

Plague locusts are normally dull colored. They have brighter markings when they swarm.

**Rat kangaroo**

The rat kangaroo carries material for its nest in its curled-up tail.

**Red-tailed black cockatoo**

A red-tailed black cockatoo raises the crest on its head when it is alarmed or excited.

**Scorpion**

The scorpion is a small arachnid, which means that it belongs to the same group as spiders, mites, and ticks. It has a poisonous stinger in its tail.

**Shingleback lizard**

The shingleback lizard uses its teeth for crunching fruit, flowers, and insects.

**Tawny frogmouth**

The tawny frogmouth is a bird with a wide mouth and a large hooked beak. It is a poor flier, and so it simply pounces on its prey from a perch.

**Thorny devil**

The thorny devil, or moloch, is a gentle, slow-moving reptile that feeds mainly on ants.

**Water-holding frog**

The water-holding frog has a “shovel” on its hind feet that it uses to dig itself backward into the ground.

**Wedge-tailed eagle**

The wedge-tailed eagle nests in cliffs. From there it can watch the plains below for prey.







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